

CLAIMS

What is claimed:

1. A method of identifying a compound capable of modulating Fc γ receptor signaling pathway, comprising
 - a) contacting at least one IgE primed mast cell with a candidate compound in the presence of Fc γ receptor signaling activation; and
 - b) determining whether the candidate compound modulates the Fc γ receptor-mediated signaling cascade.
2. The method of Claim 1 in which the candidate compound inhibits the Fc γ receptor signaling cascade.
3. The method of Claim 1 in which the Fc γ receptor is Fc γ RI.
4. The method of Claim 1 in which the mast cell is a cultured mast cell.
5. The method of Claim 1 in which the mast cell is a mucosal mast cell.
6. The method of Claim 1 in which the mast cell is a human mast cell.
7. The method of Claim 1 in which the modulation of Fc γ receptor signaling cascade is determined by measuring degranulation.
8. The method of Claim 7 in which the modulation of Fc γ receptor signaling is determined by comparing Fc γ receptor-mediated mast cell activation in presence and absence of the candidate compound.
9. The method of Claim 1 in which the compound is a small organic compound.
10. The method of Claim 9 in which the small organic compound has a molecular weight in the range of about 100-2500 daltons.

11. A method of identifying a compound for treating disorders of IgG-mediated mast cell activation, comprising:

- a) contacting at least one IgE primed mast cell with a candidate compound in the presence of Fcγ receptor signaling activation; and
- b) determining whether the candidate compound modulates the Fcγ receptor signaling cascade.

12. The method of Claim 11 in which the candidate compound inhibits the Fcγ receptor signaling cascade.

13. The method of Claim 11 in which the Fcγ receptor is FcγRI.

14. The method of Claim 11 in which the mast cell is a cultured mast cell.

15. The method of Claim 11 in which the mast cell is a mucosal mast cell.

16. The method of Claim 11 in which the mast cell is a human mast cell.

17. The method of Claim 11 in which modulation of the Fcγ receptor signaling cascade is determined by measuring degranulation.

18. The method of Claim 11 in which modulation of the Fcγ receptor signaling cascade is determined by comparing Fcγ receptor-mediated mast cell activation in presence and absence of the candidate compound.

19. The method of Claim 11 in which the compound is a small organic compound.

20. The method of Claim 19 in which the small organic compound has a molecular weight in the range of about 100-2500 daltons.

21. A method of identifying a compound capable of modulating IgE priming of mast cells, comprising:

- a) contacting at least one mast cell with a candidate compound and priming the mast cell with IgE antibody;

b) activating signal transduction via Fcγ receptor-mediated signaling pathway; and
c) determining whether the candidate compound modulates IgE priming of the mast cell..

22. The method of Claim 21 in which the candidate compound inhibits IgE priming of the mast cell.

23. The method of Claim 21 in which the Fcγ receptor is FcγRI.

24. The method of Claim 21 in which the mast cell is a cultured mast cell.

25. The method of Claim 21 in which the mast cell is a mucosal mast cell.

26. The method of Claim 21 in which the mast cell is a human mast cell.

27. The method of Claim 21 in which modulation of the IgE priming of the mast cell is determined by measuring degranulation.

28. The method of Claim 21 in which modulation of the IgE priming of mast cell is determined by comparing IgE priming in presence and absence of the candidate compound.

29. The method of Claim 21 in which the compound is a small organic compound.

30. The method of Claim 29 in which the small organic compound has a molecular weight in the range of about 100-2500 daltons.